

ANALYST:		VPDES NO	
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Meter: _____

Parameter: Hydrogen Ion (pH)

1/08

Method: Electrometric

METHOD OF ANALYSIS:

	18 th Edition of Standard Methods – 4500-H ⁺ B
	21 st or Online Editions of Standard Methods – 4500-H ⁺ B (00)

pH is a method-defined analyte so modifications are not allowed. [40 CFR Part 136.6]		Y	N
1)	Is a certificate of operator competence or initial demonstration of capability available for each analyst/operator performing this analysis? NOTE: Analyze 4 samples of known pH. May use external source of buffer (different lot/manufacturer than buffers used to calibrate meter). Recovery for each of the 4 samples must be +/- 0.1 SU of the known concentration of the sample. [SM 1020 B.1]		
2)	Is the electrode in good condition (no chloride precipitate, scratches, deterioration, etc.)? [2.b/c and 5.b]		
3)	Is electrode storage solution in accordance with manufacturer's instructions? [Mfr.]		
4)	Is meter calibrated on at least a daily basis using three buffers all of which are at the same temperature? [4.a] NOTE: Follow manufacturer's instructions.		
5)	After calibration, is a buffer analyzed as a check sample to verify that calibration is correct? Agreement should be within +/- 0.1 SU. [4.a]		
6)	Do the buffer solutions appear to be free of contamination or growths? [3.1]		
7)	Are buffer solutions within the listed shelf-life or have they been prepared within the last 4 weeks? [3.a]		
8)	Is the cap or sleeve covering the access hole on the reference electrode removed when measuring pH? [Mfr.]		
9)	For meters with ATC that also have temperature display, is the thermometer verified annually? [SM 2550 B.1]		
10)	Is temperature of buffer solutions and samples recorded when determining pH? [4.a]		
11)	Is sample analyzed within 15 minutes of collections? [40 CFR Part 136]		
12)	Is the electrode rinsed and then blotted dry between reading solutions (Disregard if a portion of the next sample analyzed is used as the rinsing solution.)? [4.a]		
13)	Is the sample stirred gently at a constant speed during measurement? [4.b]		
14)	Does the meter hold a steady reading after reaching equilibrium? [4.b]		
15)	Is a duplicate sample analyzed after every 20 samples if citing 18 th or 19 th Edition or daily for 20 th or 21 st Edition? [Part 1020] NOTE: Not required for <i>in situ</i> samples.		
16)	Is the pH of duplicate samples within 0.1SU of the original sample? [Part 1020]		
17)	Is there a written procedure for which result will be reported on DMR (Sample or Duplicate) and is this procedure followed? [DEQ]		

PROBLEMS: